



Smiles Across Kansas: 2007 Update



Kim S. Kimminau, Ph.D. and K. Allen Greiner, M.D., M.P.H.
Department of Family Medicine, Research Division
Qingjiang Hou, M.S.
Department of Biostatistics

Project Summary

Oral health is a measure of a successful health system. The *Smiles Across Kansas* project is one way for the state to monitor the status of critical oral health indicators so that successful programming and interventions can be introduced that target populations at risk for poor oral health. Completed in 2004, the first *Smiles Across Kansas* project identified six key findings that suggested there is room for improvement in children's oral health. The purpose of this project was to update the profile of oral health among third grade students and to expand on the 2004 findings by further describing the nature of their oral health status.

Methods

Elementary schools from across the state were selected for the project using the criterion of the percent of children participating in the National School Lunch Program, the federal program that provides free or reduced price school lunch to children of low income families. Dental health is affected by access to care and having dental health insurance, so selecting the sample in this way ensured that low-, middle- and higher-income community schools were included. Parents of third graders were asked to provide their consent to have their child participate, and each family received an oral health status report indicating whether their child needed to visit a dentist for follow-up care. This update provides a summary profile of the 1,261 children sampled and their oral health status as compared to the sample described in the 2004 *Smiles Across Kansas* report.

Results

The results from the 2007 project continue to indicate that the oral health status of children in Kansas varies substantially based on whether the child's family reports having dental insurance and access to dental care services. When insurance coverage is high, most oral health indicators measured are positive; when insurance coverage is reported to be low or absent, children share a pattern of poor(er) access, worse health, and the absence of some preventive treatments that would slow the progression of oral disease (i.e., dental sealants). Due to how the children were selected, the results presented describe the children sampled in this study and no attempt was made to extrapolate to the entire population of Kansas third graders. In addition, many of the trends observed are within the 95 percent confidence interval of the estimate, meaning that increases and decreases may be a function of the sample rather than a reflection of a real (statistically grounded) change. For heuristic purpose, however, the results are color coded to assist tracking the direction of change observed. A green description indicates that the status measure is possibly changing in the desired direction to improve oral health status whereas a red progress note indicates that the measure is possibly changing in an undesired direction. Comparisons that were tested for statistical difference are described where appropriate and noted in Table 1.

Untreated Dental Decay

Pattern since 2004: Decrease (meets Healthy People 2010 goal of 21 percent)

Twenty-one percent of the children sampled were observed to have untreated dental decay as compared to 25.1 percent in 2004. This finding may indicate that, even though barriers are reported by some families, when children seek care and find a provider (or dental care home), they are receiving treatment as needed.

Dental Sealants

Pattern since 2004: Health disparity remains (does not meet Healthy People 2010 goal of 50 percent)

Thirty-six percent of children in the sample had dental sealants, a proven effective preventive intervention in decreasing occlusal caries (chewing-surface cavities). This finding continues to be well below the national Healthy People 2010 goal. The increase noted of two percent is within the range of sampling error from that measured in 2004. While slight, it may indicate progress, but as displayed in the Results table on page 3, the pattern varies substantially when examined by race (48.2 percent of African American children lacked dental sealants) and ethnicity (76 percent of Hispanic children lacked dental sealants).

Dental Insurance

Pattern since 2004: Decrease (varies by race and ethnicity)

Eighty-two percent of the family's of children in the sample reported that they have some form of dental insurance as compared to 84 percent in 2004. Fewer whites and Hispanics reported having dental insurance (82.7 vs. 85.0 percent in 2004 as compared to 2007 for whites and 72.8 vs. 73.8 percent in 2004 as compared to 2007 for Hispanics). More blacks and those who declared their race as "Other" reported having dental insurance; (for blacks, the level increased from 86.2 percent to 91.7 percent from 2004 to 2007 and for "Other", the level increase from 74.8 percent to 81.1 percent from 2004 to 2007). This mixed pattern of insurance status may reflect the challenge and success in outreach programs that enroll children in public health insurance programs, but when paired with results of reported difficulties in accessing care, it continues to be an important indicator to monitor over time.

Barriers to Accessing Care During the Past Year

Pattern since 2004: Decrease (varies by race and ethnicity)

Almost 14 percent of all children sampled reported that they could not get dental care during the 12 months prior to the study period, down from 17 percent in 2004. In the initial study, this challenge was more common among low-income student families and in the current study, the problem persists. Asian families reported the highest level of difficulty in accessing care (29.2 percent report the problem) and African American families reported the lowest level of trouble getting dental care (4.5 percent) however caution should be used because of the relatively small number of these children included for this indicator.

Time Since Last Dental Visit

Pattern since 2004: Increase

Hispanic children represented about 17 percent of all of the children sampled but 29.4 percent of those who reported never having seen a dentist. An additional 62 percent of Hispanic children had not seen a dentist in over a year. Among all children studied, 78 percent reported having seen a dentist at least once during the prior 12 months (up from 72.7 percent in 2004).

Summary

While the oral health status indicators tracked in the 2004 and 2007 studies may have improved on the whole (or at least not worsened), certain groups of children were found to be more vulnerable to relatively poorer oral health or to lack evidence of preventive services than others. African American children were not observed to have dental sealants at the level expected, and in the 2007 sample, Hispanic children demonstrated a similar pattern. The health disparity among African Americans is difficult to explain because unlike Hispanic children, African American children reported higher levels of insurance, fewer barriers to access care, and higher levels of annual dental visits – all of which should provide for the opportunity to have received dental sealants. By contrast, Hispanic children more frequently were uninsured, faced barriers to care and may never have seen a dentist at all, leaving them more susceptible to conditions that would lead to non-placement of sealants. In both cases, targeted strategies for families and for dental care professionals are needed to encourage sealants in these two groups.

Dental insurance coverage for children may be slipping in Kansas. One possible source may be shifts in the workplace that either eliminated or restricted dental health insurance for employees' families. It is important to note that this study was not designed to fully explore the issue of insurance coverage, but the result of trending this indicator indicates it should continue to be monitored.

Establishing dental care homes and increasing public-private partnerships between schools, local public health departments and private practice dentists were among the recommended policy options in the 2004 report. Some of these may be contributing to at least “holding the line” if not actually improving the oral health of Kansas children. For example, when more children are connecting with dental care providers for routine care, fewer cases of untreated dental decay are expected. The results of the 2007 update study indicate that diligence in addressing access issues should be paired with targeted education and outreach to families, particularly Hispanic families, to improve the oral health of children across Kansas.

2007 Oral Health Indicators Summary

	Race				Ethnicity
	White	Black	Asian	Other	Hispanic
Percent of the sample	87.2	4.7	2.8	5.3	16.8
% within each race/ethnicity category who lack dental insurance	17.3	8.3	20.0	18.9	27.2★
% within each race/ethnicity category with untreated dental decay	20.9	13.0	25.0	23.0	24.6
% within each race/ethnicity category who could not get dental care in previous 12 months	13.9	4.4	29.2★	15.4★	31.0★
% within each race/ethnicity category lacking dental sealants	64.2	51.8	21.9	57.4	76.0★
% within each race/ethnicity category that have never had a dental visit	3.9	1.9	3.6	3.4	4.3★

★ statistically significant; $p \leq .05$

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